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Princeton

Dr. Porter's Formula for Fortifying The Life Sciences Industry

By William T. Quinn

A Harvard B-School prof tells key players to pull together—or else

tart talking to each other and working together. Oh yeah, and toss in some money, too. That, in a nutshell, is Harvard Business School Professor Michael Porter's advice to the state's political and business leaders if they want to keep a big chunk of the nation's life sciences industry cemented inside New Jersey's borders.

Porter, a renowned expert on the economic competitiveness of industries and regions, doesn't put it quite as bluntly as that in the 73-page report packed with graphics, charts and talking points he unveiled at a gathering at Princeton University last Friday.

But that inescapable theme emerges as Porter recommends a series of steps for keeping New Jersey's life sciences industry fit enough to resist the blandishments of other states that want to lure away local biotech and pharmaceutical companies.

Porter says New Jersey must beef up its universities and win more research funding from the National Institutes of Health (NIH). He also strongly backs the proposed merger of Rutgers University, the New Jersey Institute of Technology and the University of Medicine & Dentistry of New Jersey (UMDNJ). A commission headed by former Merck Chairman Roy Vagelos urged their combination last year.

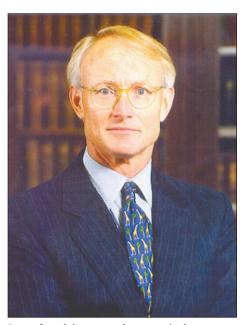
Porter also wants more contact and cooperation among universities and the state's biotech and pharmaceutical companies, and stronger networking organizations to bring together companies in the life sciences industry. Finally, he wants the state to provide more funding for research in life sciences and promising startup ventures.

Porter's \$250,000 review of the competitive strengths and weaknesses of the life sciences sector began last fall and involved interviews with 51 people who work in the industry or are familiar with it, plus e-mail correspondence with 80 others.

"I don't think anything was incredibly surprising," Debbie Hart, president of the Biotechnology Council of New Jersey, said of the findings. "It was a validation of what we've been thinking of as the state of the state."

Hart's group, which represents 140 member firms in the state, contributed \$50,000 towards the study. Another \$50,000 came from Prosperity New Jersey, a private-public partnership that promotes the growth of high-tech companies. The remaining \$150,000 came from the Health-Care Institute of New Jersey, the trade group for the state's pharmaceutical firms.

The study assessed how New Jersey can hold on to its base in the life sciences industry. "This is critical for our state," says Adam



Porter found the state to be strong in drug development but weak in federal funding.

Pechter, CEO of Prosperity New Jersey. "We lead the nation in life science. Yet, New Jersey faces unprecedented competition from other states such as California, Massachusetts and North Carolina for this asset."

Hart says an umbrella group called the New Jersey Coalition for Biotechnology and Life Sciences was formed recently to boost the marketing of the state as a destination for life sciences companies.

Its founding members include state government agencies, universities and trade groups which made up a predecessor group formed in 1998. But the new organization plans to offer membership to professionals such as attorneys and accountants who do work for life sciences firms.

o fund its operations, Hart says the group plans to charge membership fees ranging from \$3,000 to \$25,000. Even signing up one member at full price, she notes, would give the group a bigger marketing budget than its predecessor had last year.

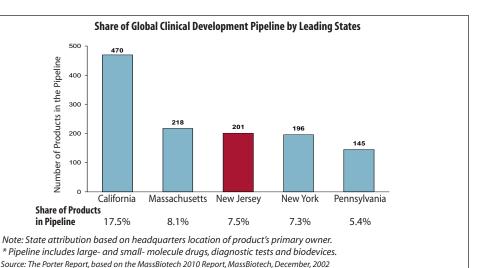
Porter cited the group in his report as an example of the kind of broad-based organization that deserves support.

Porter found continued strength in New Jersey's life sciences industry by several key measures. Companies based here rank third in the number of new drugs in progress, with 201. Ranking higher are California and Massachusetts. Their firms have respective totals of 470 and 218 drugs in development.

New Jersey's performance in winning patents on new discoveries also remains strong by some measures. The state ranked fourth in the U.S. in total patents granted during the years 1998 through 2001. But it lagged when patents

Raleigh-Durham and San Francisco area.

Source: The Porter Report, based on interviews conducted October-December, 2002



were compared with the number of workers, or the total state population.

New Jersey ranked a disheartening last in the nation in the rate of growth for new patents in the life sciences. Porter said only two New Jersey companies—Merck and Schering-Plough—ranked among the top 25 companies in the U.S. in winning new life sciences patents between 1996 and 2000.

Porter quizzed respondents closely on New Jersey's strengths and weaknesses as a place to do business as compared with other parts of the country.

The positives cited most frequently included access to a pool of skilled workers, overall quality of life for employees, good transportation and proximity to major metropolitan areas. Weaknesses included a lack of access to, or communication with, local research and development centers. Also cited were subpar state funding for research and development and relatively little communication with venture capitalists.

New Jersey's track record for winning NIH funding for health-related research is also poor. It ranks 24th among states in this category. New Jersey universities are also laggards in research spending. Porter said Rutgers led the pack during the years 1998 through 2000 with spending of \$636 million. That ranked it 41st among U.S. universities. In New Jersey, Rutgers was followed by UMDNJ with \$382 million, ranking 77th in the country, and Princeton, whose \$375 million ranked 79th.

Joe Montemarano, director for industrial liaison at Princeton's Center for Photonics and Optoelectronic Materials, said the fact that neither Princeton nor Rutgers has a medical school should be factored into any assessment of the rankings.

Montemarano said recent Princeton investments "both in molecular biology and genomics will not only have a good return to Princeton but will benefit the state and the state's biotech and pharmaceutical companies." That could provide some of what Dr. Porter ordered.

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